#### REMARKS/ARGUMENTS

Applicant has carefully reviewed and considered the Office Action mailed on January 17, 2007, and the references cited therewith.

Claims 1-2, 4, 13-14, 22, 26, 30-31, and 34 are amended, no claims are canceled, and no claims are added; as a result, claims 1-38 are now pending in this application.

Applicant respectfully submits that the amended claims do not introduce any new subject matter and are intended to cover additional claimable subject matter fully supported by the originally filed specification.

# Specification Objections

The Disclosure was objected to because of the following informalities:

Page 3 line 2: "printing device 740" should be – printing device 740 –

Page 4 line 32: "Figure 2" should be – Figure 2A –

Furthermore, the specification was objected to as failing to provide proper antecedent basis for the claimed subject matter of Claim 30 line 4: "a media marking mechanism."

With respect to the objection to page 4, Applicant herein amends the Specification to correct the typographical error, reciting Figure 2A, rather than Figure 2, as suggested by the Examiner. Applicant submits that, as amended, the Specification overcomes the Examiner's basis for objection.

With respect to the objection to page 3, the replacement language suggested by the Examiner appears identical to the original phrase in the disclosure (i.e., "printing device 740"), thus Applicant does not understand the nature of the informality to which the Examiner objects. Accordingly, Applicant requests the objection be removed.

With respect to the antecedent basis in the specification for "a media marking system," Applicant submits that the 37 C.F.R. § 1.75 objection to the Specification is improper because the Specification enables one skilled in the art to

make and use the invention. The Office Action refers specifically to Claim 30 and indicates that the term "a media marking system" is unclear. However, Applicant submits that various portions of the Specification are directed to specific example implementations of a media making system. For example, a relevant portion of the Specification, beginning on page 3, line 6, is reproduced below which provides two examples of the claimed structure, namely "a laser printing mechanism" and "an inkjet printing mechanism":

Figure 1B illustrates an embodiment of a laser printing device 150. The laser printing device 150 can include those components identified with Figure 1A, however printing device 150 includes a laser printing mechanism versus an inkjet printing mechanism. In the embodiment shown in Figure 1B, the printing device 150 includes a console 160 and a print media supply tray 170. The console 160 can be used to enter information into the printing device 150.

Undue experimentation would not be required by one skilled in the art to arrange these and other mechanisms as a media marking system, within an image forming system, as claimed in the present invention. In view of the above, Applicant respectfully submits that the specification is enabling for the particular claimed elements set forth in Claim 30, and kindly requests that the objection under 37 C.F.R. § 1.75 be removed.

#### Claim Objections

Claims 22 and 26 were objected to because of the following informalities:

Claim 22 line 3: "tracking matched" should be – tracking matches –

Claim 26 line 4: "tracking matched" should be – tracking matches –

Appropriate corrections have been made in the above listing of the claims.

#### § 101 Rejection of the Claims

Claim 31 was rejected under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter. The Office Action mailed on January 17, 2007 indicates "The claim defines the means for receiving data as a set of computer executable instruction, which is functional descriptive material . . ."

An appropriate correction has been made in the above listing of the claims. Therefore, Applicant requests that the 101 rejection to Claim 31 be withdrawn.

### § 112 Rejection of the Claims

Claims 19 and 20 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Variable length Gamma Golomb (3) codes are discussed in the Specification at page 10, lines 30-32. Gamma coding, Golomb coding and Gamma-Golomb coding are known by those having ordinary skill in the relevant art. Therefore, Applicant respectfully suggests that the term need not be further defined within the specification, and requests that the 112, second paragraph, rejection to Claims 19 and 20 be withdrawn.

### § 102 Rejection of the Claims

Claims 1-6, 9-11, 22, 25, 26 and 29 were rejected under 35 USC § 102(b) as being anticipated by So et al. (U.S. Publ. No. 2001/0024524). Applicant respectfully traverses the rejection as follows.

From the Applicant's review the So reference appears to describe that <u>all</u> of the predictors i.e., 12a through 12e, approximates through prediction a value of the target pixel (i.e., a value is computed for each predictor) given the peripheral pixel value group 102 from the window composition circuit 11 (Paragraph [0040]; see also [0039] and [0041]). The decoded values are sent as a peripheral pixel value group 102 to the predictors 12a through 12e. The So reference does not describe tracking a pool of pixel predictors, selecting a subset of pixel predictors from the pool, and <u>updating the value of only those pixel predictors of the subset with each pixel processed</u>.

In contrast, Applicant's independent Claim 1, as amended, recites "selecting a subset of pixel predictors from the pool, and updating the value of only those pixel predictors of the <u>subset</u> with each pixel processed".

As such, Applicant respectfully submits that each and every element and limitation of independent Claim 1, as amended, is not present in the So reference. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 102 rejection of independent claim 1, as amended, as well as dependent Claims 2-6 and 9-11 that depend therefrom.

With respect to independent Claims 22 and 26, as amended, which include a limitation of updating one pixel predictor value to the last unmatched pixel value; the So reference appears to describe selecting the closest predictor when all of the predictors i.e., 12a through 12e, are outside the tolerance 105 (Paragraph [0041]). The So reference does not appear to describe having an <u>unmatched</u> pixel value since it utilizes a predictor with the smallest prediction error as a match, and thus, does not teach updating a predictor for an <u>unmatched</u> pixel value.

In contrast, Applicant's independent claims 22 and 26, as amended, recite "updating one pixel predictor value to the last unmatched pixel value". As such, Applicant respectfully submits that each and every element and limitation of independent claims 22 and 26, as amended, is not present in the So reference. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 102 rejection of independent Claims 22 and 26, as well as dependent Claim 25 which depends from independent Claim 22.

With respect to independent Claim 29, the So reference appears to describe a rank run length being sent as a coding symbol 108 to the Huffman coding circuit 17 (Paragraph [0044]). Applicant respectfully submits that sending a run length as a coding symbol to a Huffman coding circuit is not equivalent to "specifying a number of bit limits for encoding an indicator of a run command". Further, the Applicant is unable to locate where the So reference describes "encoding a seedrow count". As such, Applicant respectfully submits that each and every element and limitation of independent claim 29 is not present in the So reference. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 102 rejection of independent Claim 29.

## §103 Rejection of the Claims

Claims 7, 8, 12, 13, 19 and 20, as understood, were rejected under 35 USC § 103(a) as being unpatentable over So et al. in view of Weinberger et al. (IEEE Transactions on Image Processing, Vol. 9, No. 8, Aug. 2000 "The LOCO-I Lossless Image Compression Algorithm: Principles and Standardization into JPEG-LS").

Claims 14-18, 21, 23, 24, 27 and 28 were rejected under 35 USC § 103(a) as being unpatentable over So et al. in view of Takaoka et al. (U.S. Patent No. 6,157,676).

Claims 30-35 were rejected under 35 USC § 103(a) as being unpatentable over So et al. in view of Sriram et al. (U.S. Patent No. 6,654,419).

Claims 36 and 37 were rejected under 35 USC § 103(a) as being unpatentable over So et al. in view of Sriram et al. as applied to claim 35 above, and further in view of Weinberger et al.

Claim 38 was rejected under 35 USC § 103(a) as being unpatentable over So et al. in view of Sriram et al. as applied to claim 34 above, and further in view of Takaoka et al.

Applicant respectfully traverses the 103 rejections as follows.

Claims 7, 8, 12 and 13, depend from independent claim 1. For the reasons provided above with respect to the 102 rejections, Applicant respectfully submits that independent Claim 1 is allowable in view of the So reference. From the Applicant's review, the Weinberger reference does not cure the deficiencies of the So reference with respect to claim 1. That is, the Weinberger reference does not describe, teach or suggest "updating the value of only those pixel predictors of the subset with each pixel processed".

As such, the references do not, either independently or in combination, describe, teach or suggest each and every element and limitation of independent claim 1, as amended. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent Claims 7, 8, 12 and 13 which depend from allowable claim 1.

Independent claim 14, as amended, recites "encoding verbatim a pixel being processed as an unmatched pixel value if no match is found". As described above, the So reference appears to describe selecting the closest predictor when all of the predictors i.e., 12a through 12e, are outside the tolerance 105 (Paragraph [0041]). The So reference does not appears to describe, teach, or suggest ever having an unmatched pixel value since it always finds the closest match. Indeed, the So reference does not contemplate a course of action for an unmatched pixel value. As such, the So reference does not describe, teach, or suggest each and every element and limitation found in Applicant's independent claim 14, as amended.

From the Applicant's review, the Takaoka and Weinberger references do not cure the deficiencies of the So reference. That is, neither the Takaoka nor the Weinberger references, either independently, in combination, and/or in combination with the So reference, describe, teach, or suggest "encoding verbatim a pixel being processed as an unmatched pixel value".

Therefore, the references do not, either independently or in combination, describe, teach or suggest each and every element limitation of independent claim 14, as amended. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of independent claim 14, as well as for those claims which depend therefrom.

Claims 23 and 24 depend from independent Claim 22, and dependent claims 27 and 28 depend from independent Claim 26. For the reasons provided above with respect to the 102 rejections, Applicant respectfully submits that independent Claims 22 and 26 are allowable in view of the So reference. From the Applicant's review, the Takaoka reference does not cure the deficiencies of the So reference. That is, the Takaoka reference does not describe, teach, or suggest "updating one pixel predictor value to the last unmatched pixel value" as recited in independent claims 22 and 26, as amended.

As such, the references do not, either independently or in combination, describe, teach or suggest each and every element and limitation found in independent claims 22 and 26. Accordingly, Applicant respectfully requests

reconsideration and withdrawal of the 103 rejection of dependent Claims 23, 24, 27 and 28 which depend therefrom.

Independent claim 30, as amended, recites "a set of computer executable instructions stored on the memory and executed by the processor to select a subset of pixel predictors from the pool and update the value of only those pixel predictors of the subset with each pixel processed". From the Applicant's review, neither the So reference nor the Sriram reference describe, teach, or suggest "a set of computer executable instructions stored on the memory and executed by the processor to select a subset of pixel predictors from the pool and update the value of only those pixel predictors of the subset with each pixel processed".

As such, the references do not, either independently or in combination, describe, teach, or suggest each and every element and limitation of independent claim 30, as amended. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of independent claim 30, as well as those claims which depend therefrom.

Independent claim 34, as amended, recites "logic on the device to select a subset of pixel predictors from the pool and update the value of only those pixel predictors of the subset with each pixel processed". From the Applicant's review, neither the So reference nor the Sriram reference describe, teach, or suggest "logic on the device to select a subset of pixel predictors from the pool and update the value of only those pixel predictors of the subset with each pixel processed".

As such, the references do not, either independently or in combination, describe, teach, or suggest each and every element and limitation of independent claim 34, as amended. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of independent claim 34, as well as those claims which depend therefrom.

Claims 36 and 37, depend from independent claim 34. For the reasons provided above Applicant respectfully submits that independent claim 34 is nonobvious and allowable over the So and Sriram references. From the Applicant's review, the Weinberger reference does not cure the deficiencies of the So and Sriram

references. That is, the Weinberger reference does not describe, teach or suggest, either independently or in combination with the So and Sriram references, logic on the device to select a subset of pixel predictors from the pool, and update the value of <u>only</u> those pixel predictors of the <u>subset</u> with each pixel processed.

As such, the references do not, either independently or in combination, describe, teach, or suggest each and every element and limitation of independent claim 34, as amended. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of claims 36 and 37 which depend therefrom.

Claim 38 depends from independent claim 34. For the reasons provided above Applicant respectfully submits that independent claim 34 is nonobvious and allowable over the So and Sriram references. From the Applicant's review, the Takaoka reference does not cure the deficiencies of the So and Sriram references. That is, the Takaoka reference does not describe, teach or suggest, either independently or in combination with the So and Sriram references, logic on the device to select a subset of pixel predictors from the pool, and update the value of only those pixel predictors of the subset with each pixel processed.

As such, the references do not, either independently or in combination, describe, teach, or suggest each and every element and limitation of independent claim 34, as amended. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of claim 38 which depends therefrom.

### **CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney Edward J. Brooks III at (612) 236-0120.

At any time during the pendency of this application, please charge any additional fees or credit overpayment to the Deposit Account No. 08-2025.

CERTIFICATE UNDER 37 CFR §1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS AMENDMENT Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450 on this 26 hday of More L., 2007.

Alison L. Subundan

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Signature

Respectfully Submitted, Dana A. Jacobsen

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